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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/516,644	12/01/2004	Kars-Michiel Hubert Lenssen	NL 020459	8772

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS  
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BRIARCLIFF MANOR, NY 10510

EXAMINER

HOLLINGTON, JERMELE M

ART UNIT PAPER NUMBER

2829

DATE MAILED: 09/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/516,644

Applicant(s)

LENSSSEN, KARS-MICHIEL  
HUBERT

Examiner

Jermele M. Hollington

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 December 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>06/06</u> | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The examiner will like to note to applicants that not all of the references in the information disclosure statement filed on June 27, 2006 comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because the date of a non-patent literature document has not been disclosed (see cross out reference on page 2 of PTO-1449). It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Mouchot et al (5708407).

Regarding claim 1, Mouchot et al disclose [see Fig. 1-2] a sensor (sensor 10) for measuring a magnetic field induced by a current of charged particles comprising at least one

magneto resistive sensor element (magneto resistive tape 12) for enclosing the magnetic field induced by the current of charged particles, the magneto resistive sensor element (12) being arranged perpendicularly to the current during use [see also col. 4, line 47- col. 5, line 5].

Regarding claim 2, Mouchot et al disclose the magneto resistive sensor element (12) has a circular shape [see col. 4, lines 47-53].

Regarding claim 3, Mouchot et al disclose the magneto resistive sensor element (12) is present on a flexible substrate (substrate 40).

Regarding claim 4, Mouchot et al disclose the magneto resistive sensor element (12) is a strip [see Fig. 2].

Regarding claim 5, Mouchot et al disclose the magneto resistive sensor element (12) has a linear  $R(H)$  characteristic [see col. 4, lines 61-62].

Regarding claim 6, Mouchot et al disclose magneto resistive sensor elements (12) are arranged in a Wheatstone bridge configuration [see col. 4, lines 60-64].

Regarding claim 7, Mouchot et al disclose two magneto resistive sensor elements ( $R_1$  and  $R_2$ ) of the Wheatstone bridge configuration [see col. 4, lines 60-64] are present on one side of the flexible substrate (40) and the other two magneto resistive sensor elements ( $R_3$  and  $R(H)$ ) are present on the other side of the flexible substrate (40) [see also col. 8, line 54- col. 9, line 7].

Regarding claim 8, Mouchot et al disclose the two magneto resistive elements ( $R_1$  and  $R_2$ ) on one side of the flexible substrate (40) have the same magnetization direction [see also col. 8, line 54- col. 9, line 7].

Regarding claim 9, Mouchot et al disclose a pair of two magneto resistive sensor elements ( $R_1$  and  $R_2$ ) of the Wheatstone bridge configuration [see col. 4, lines 60-64] has been

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stacked on top of the other pair of magneto resistive sensor elements, and between the two pairs an insulating material is present and a conductor is present for carrying the current of charged particles [see also col. 8, line 54- col. 9, line 7].

Regarding claim 10, Mouchot et al disclose a method for measuring a current (I) of charged particles using the sensor (sensor 10) as claimed in anyone of the claims 1 to 9, comprising the steps of: determining a change in resistance in the sensor (10) according to the invention caused by a magnetic field (H) induced by the current (I) of charged particles [see col. 6, line 11- col. 8, line 31], comparing the change in resistance with a reference characteristic (R (H)) of the sensor (10) of the resistance versus magnetic field (H) and determining the magnitude of the magnetic field [see col. 6, line 11- col. 8, line 31], calculating the magnitude of the current (I) from the magnitude of the magnetic field (H) [see col. 7, line 48- col. 8, line 31].

Regarding claim 11, Mouchot et al disclose making use of the sensor (10) according to claim 9, wherein a current (I) is sent through a first conductor (conductor 11) and a current having an opposite sign is sent through a second conductor positioned parallel to the first conductor for measuring a residual current.

4. Claim 12 is rejected under 35 U.S.C. 102(b) as being anticipated by Kim et al (6141197).

Kim et al disclose [see Fig. 1] a protective switch device (circuit breaker 10) for protecting a user of an electrical device by switching a supply current [via power supply circuit 28] to the electric device off in case of malfunction of the electric device, comprising a sensor (trip solenoid 33), and further comprising: a comparator circuit (hall sensor 23) comparing an output current or voltage of the current sensor with a reference current or voltage respectively,

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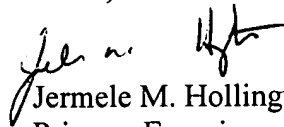
and a relay device (trip unit 19) switching the supply current dependent on the output current or voltage of the comparator circuit (23).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jermele M. Hollington whose telephone number is (571) 272-1960. The examiner can normally be reached on M-F (9:00-4:00 EST) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ha Nguyen can be reached on (571) 272-1678. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Jermele M. Hollington  
Primary Examiner  
Art Unit 2829

JMH  
September 9, 2006